

CLAIMS

What is claimed is:

1. A method in a telecommunications network for routing a call, comprising:
 - 5 receiving call set-up signals for a called party mobile station;
 - determining a last known location for the called party mobile station;
 - determining whether a “do not disturb” feature is active for the called party mobile station and whether a message should be delivered to a calling party mobile station prior to continuing to process the call and whether the calling party mobile station has responded to the
 - 10 message in a manner indicating that the call should continue to be routed to the called party mobile station.
2. The method of claim 1 wherein the step of determining the last known location is performed by one of a Home Location Register (HLR) and a Visitors’ Location Register (VLR).
- 15 3. The method of claim 2 wherein one of the HLR and VLR determines a local time value for a last known location of the called party mobile station.
4. The method of claim 3 wherein the step of determining whether the “do not disturb” feature is active for the called party mobile station includes determining whether the called party mobile station is a subscriber of the “do not disturb” feature and is performed by an MSC.

5. A method in one of a Home Location Register / Visitors' Location Register, comprising:

receiving call set-up signals for a called party mobile station;

determining a last known location for the called party mobile station;

determining a local time for the last known location for the called party mobile station;

5 and

producing a local time corresponding to a last known location for the calling party mobile switching center.

6. The method of claim 5 further including examining a subscriber profile for the called

10 party mobile station to determine a "do not disturb" time range and producing the "do not disturb" time range to the calling party MSC.

7. The method of claim 6 further including receiving and storing an indication from the

called party mobile station that a "do not disturb" feature has been activated.

15

8. The method of claim 7 further comprising providing an indication to the calling party

MSC that the called party has activated the "do not disturb" feature.

20

9. A method in a home location register, comprising:

receiving at least one of a country code, an area code or a cell phone number from a serving mobile switching center (MSC) for a user equipment terminal in a local time request signal;

5 determining a local time responsive to receiving the local time request signal; and producing the local time to the MSC serving the user equipment terminal for delivery to the user equipment terminal.

10. The method of claim 9 further including receiving a specified time value and determining

10 a corresponding time value for one of the country code, area code or a last known location for a mobile station corresponding to the cell phone number.

11. The method of claim 10 further including determining whether to deliver an SMS message or an IVR message to the user equipment terminal.

15

12. The method of claim 11 further including determining that the user equipment terminal is an SMS message-capable mobile station.

13. The method of claim 12 wherein the message merely provides a time corresponding to
20 the country code or area code.

14. The method of claim 9 further including receiving a location update request signal specifying a called party mobile station ID and determining, based upon a determined local time for a last known location of the called party mobile station, whether to route the call or whether to generate a message number corresponding to a message to be originated by a message delivery device for delivery to the calling party mobile station.

5
15. The method of claim 14 further including determining whether a local time is to be provided to the calling party and, if so, providing a local time for the last known location of the called party mobile station to the calling party MSC.

10

16. The method of claim 15 further including evaluating whether the called party has specified whether a local time is to be provided to the calling party.

17. A Home/Visitors' Location Register (HLR/VLR), comprising:
 - a processor for executing computer instructions;
 - a memory for storing the computer instructions, wherein the computer instructions include:
 - 5 logic for performing routine home location register functions;
 - logic for retrieving time zone data from a database;
 - logic for evaluating the retrieved time zone data; and
 - logic for generating a message to an MSC corresponding to the retrieved time zone data.
- 10 18. The HLR/VLR of claim 17 wherein the computer instructions further include logic for:
 - receiving call setup signals for a called party mobile station;
 - examining a subscriber profile for the called party mobile station;
 - determining a last known location for the called party mobile station;
 - determining whether to deliver a message to a calling party mobile station to prompt the
- 15 calling party mobile station to leave a message;
 - receiving a calling party mobile station response by way of a mobile switching center;
 - and
 - storing a message or for routing the call to the called party mobile station.
- 20 19. The HLR/VLR of claim 18 wherein the computer instructions further include logic for determining a local time for the called party mobile station.

20. The HLR/VLR of claim 18 wherein the computer instructions further include logic for, based upon the local time for the called party mobile station and upon the called party mobile station's subscriber profile, that the call is not to be set up without first generating a specified message to the calling party mobile station.

5

21. The HLR/VLR of claim 18 wherein the computer instructions further include logic for generating a message number and a message parameter to the MSC serving the calling party mobile station to enable the calling party mobile station's MSC to prompt one of a short message service server or an interactive voice response unit to generate a specified message.

10

22. The HLR/VLR of claim 21 wherein the computer instructions further include logic for determining whether the calling party mobile station is SMS-message capable.

23. A method in a mobile switching center (MSC), comprising:

receiving call set-up signals for a call being established between a calling party and a called party;

sending to a home location register one of a location update request signal to determine a

5 serving MSC for the called party and a local time request signal;

receiving a local time for one of a last known location for the called party, a country code or an area code;

comparing the local time to a do not disturb time range;

generating a message number to a message delivery device to prompt the message

10 delivery device to generate a message for the calling party and;

playing the message to the calling party.

24. The method of claim 23 further including generating a message number to a message

delivery device to prompt the message delivery device to generate a message for the calling

15 party.

25. The method of claim 24 further including routing the call after delivering the message.

26. The method of claim 24 wherein the message delivery device is one of a short message

20 service server or an interactive voice response unit.

27. The method of claim 24 further including the step of determining whether a local time for

the last known location of the called party is to be transmitted to the calling party.

28. The method of claim 27 wherein the determining step is based upon a subscriber profile indication.